

Guidelines:

**Alternative Operating Scenarios
and Emissions Trading Provisions**

September 9, 1999

DRAFT (Rev. 1)

III-107

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

What are Alternative Operating Scenarios and Emissions Trading Provisions?

Alternative Operating Scenarios: The title V permitting program allows the title V permits to contain terms and conditions for “reasonably anticipated” operating scenarios. A source with an approved alternative operating scenario(s) may, as part of normal operations, make changes in operations in a way that triggers a different set of applicable requirements. If a title V permit properly includes these scenarios, the permit will be a more complete representation of the source and will allow the source the operational flexibility without obtaining a permit revision to account for the previously approved operating scenarios and their different applicable requirements.

Emissions Trading Provisions: A title V permit may include provisions that allow permitted sources to establish a federally enforceable emissions cap and would allow emission increases and decreases at the facility to be traded provided the source provides notice 7 days prior to the trade. Trading through SIP approved rules is also allowed and described further in this section.

Why Review Alternative Operating Scenarios and Emissions Trading Provisions?

All Alternative Operating Scenarios and Emission Trading Provisions must be reviewed to see if they meet the core federal requirements. Because these two portions of Part 70 allow a source “operational flexibility” many sources may eagerly approach permitting authorities and EPA to incorporate these “flexible” components to their part 70 permit. However, implementation of these provisions is relatively new. While innovative permitting programs currently explore the boundaries of these provisions (e.g., Project XL, Pharmaceutical MACT, P4 Permitting, etc.) there has been little testing of these requirements in traditional title V permits. So be on the lookout for errors or misinterpretations of the regulations. Remember, when in doubt, consult the regulations.

CAA 502(b)(6) mandates that permits include, “adequate, streamlined and reasonable procedures” for permit actions. Both provisions are allowed by CAA §502(b)(10) – a requirement that state programs include provisions to allow changes within a permitted facility without requiring a permit revision as long as certain provisions are met. Part 70 permits may contain Alternative Operating Scenarios (See §70.6(a)(9)) and the Emission Trading Provisions. (See §70.6(a)(8) and (10))

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

Alternative Operating Scenarios -- The Basics

How Do I Identify an Alternative Operating Scenario?

If the permit contains an alternative operating scenario, it should be clearly identified as such in the source's permit application and permit. Many times, however, routine switches in operation will not be identified as "alternative" even though the source anticipates changes from the normal operational modes (e.g., fuel switches for boilers or IC engines). The Alternative Operating Scenario must clearly describe all operational modes and compliance obligations for each mode. Regardless of the term used, all applicable requirements must be contained in the Part 70 permit and the permit must assure compliance with all requirements.

How Can I Tell if the Alternative Scenario is "Reasonably Anticipated" by the Source?

Does the scenario include only existing emission units and activities at the Part 70 source? If yes, then it is quite possible that the scenario is acceptable. For example, if a Part 70 source has an existing fossil fuel fired boiler and has proposed an alternative scenario to allow the unit to switch between two fuel types, the task of reasonably anticipating the terms and conditions of the two operating modes is fairly easy. The source should rely on its past operational experience and future expectations to identify, in its permit application, all applicable requirements associated with the two operational modes. The permitting authority must, in turn, draft the permit to ensure operation under each mode will be in compliance with all applicable requirements. Refer to the box below for scenarios that may not include equipment that has been identified in the permit.

Watch Out!

...for proposed permit scenarios that would allow:

- the combination and reconfiguration of existing emissions units and control devices in alternative operational states and configurations **that are not identified in the permit**; or
- pre-approval of future like-kind emission units or controls (**not identified in the permit**) that will replace existing equipment (identified on the permit) provided there is not an increase in capacity of the unit(s); or
- new equipment identified in the permit as on-site surplus equipment to replace retired equipment or augment in-service equipment and **may increase production capacity**.

The types of alternative scenarios described here are currently only allowed in the **pharmaceutical MACT standard** at 40 CFR Part 63 Subpart GGG §63.1250 et. seq. (See 63 FR 50280, 50311 and 50318) While this MACT allows preapproval of certain equipment, it also describes details on how compliance with the alternative scenarios will be determined (e.g., detailed record keeping). Be aware of other sources seeking this type of alternative scenario.

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

Table 1 -- How Do I Review the Permit For Alternative Operating Scenario Requirements at §70.6(a)(9)?	
Does the Permit...	What to Look For
...application include the alternative operating scenario that the permit describes?	In order to benefit from the alternative operating scenario, the source is required to describe the alternative scenario in the permit application including the source's processes and products for each alternative scenario. The permitting authority is then in turn required to approve the scenario if they believe that the scenario is reasonably anticipated.
...include emissions limitations and standards, monitoring, record keeping, reporting, compliance and other requirements to assure compliance with all applicable requirements of each such alternative scenario?	Emission limits under each operational mode must be in the permit. Also, the permit must continue to accurately reflect the source's compliance obligations under all requirements applicable to the change. If the permit does not, then a switch to a new operational mode would trigger a permit revision, reopening or a section 70.4(b) notification provision (i.e., 7-day notice prior to modification).
...require the source, contemporaneously with changing operating scenarios, to record each change in a log at the permitted facility?	The contemporaneous record of the present operating scenario that the source maintains on-site serves to document for important inspection and enforcement purposes that the source is in compliance with the source's permit terms and conditions.
...include a permit shield for each operating scenarios?	The permit shield may extend to terms and conditions under each operating scenario. Note: If the permits contemplates a one-time change in operation (i.e., as with advanced new source review) the permit should not allow the source to go back and forth between scenarios. Instead, the permit should identify the requirements that apply before the change and those that apply after the change, and require notice of when the change occurs.

Example of Alternative Operating Scenario: A mining source processes ore at its mine using either a “wet” or “dry” process. Only one process is used at a time and the same PM-10 emissions limit applies regardless of process. Compliance requirements, however, differ depending on whether the source is employing a wet or dry process: the wet process requires particulate matter testing semi-annually; and the dry process requires use of spray bars (with weekly maintenance/monitoring) along with the semi-annual stack test. The source requests, in its title V permit application, that the wet and dry processes be considered as “alternative operating scenarios.” The permitting authority, in turn, incorporates the scenarios in the title V permit, including all necessary monitoring record keeping and reporting requirements of each scenario and includes the requirement that the source maintain a contemporaneous log of each operating scenario.

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

Emissions Trading Program Provisions – The Basics

There are **two types** of emission trading programs allowed under Part 70. Both have been established to meet the operational flexibility requirements of CAA §502(b)(10).

1. The first type is a **mandatory** requirement that state Part 70 programs include emissions trading solely under emissions caps. (See 40 CFR 70.4(b)(12)(iii)) The **permit content** requirements at 70.6(a)(8) and (a)(10) discuss some general trading requirements but do not discuss emission caps specifically. See table 2 for more details on permit requirements for emission caps.
2. The second type of trading program is **optional** and, if incorporated in the state's Part 70 program, would allow a permitted source to trade increases and decreases (assuming the permit does not already provide for such trading) according to a SIP-approved rule that provides for such emissions trades. (See 40 CFR 70.4 (b)(12)(ii)). The 70.6 provisions on permit content are silent about (b)(12)(ii) trades except for the general trading statement under 70.6(a)(8). Instead the compliance obligations reside in the SIP-approved rule, which is now an applicable requirement and therefore, the compliance provisions (or gap-filled periodic monitoring) must be incorporated into the title V permit. The permit must also contain the requirement to notify the EPA and the permitting authority 7 days prior to such change (see 70.4(b)(12)(iii))

The South Coast Air Quality Management District's RECLAIM program is an example of a SIP-approved trading program that allows sources (including title V) to trade increases and decreases according to the SIP-approved program.

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

Table 2 – Permit Content Requirements for Trading Under a Fed. Enf. Cap (70.4(b)(12)(iii))

Does the permit...	What to look for in the application and permit
<p>...include a provision stating that no permit revision is necessary under any approved economic incentives, marketable permits, emissions trading and other similar programs or procedures for changes that are provided for in the permit?</p>	<p>Check the permit and look for this exact language because 70.6(a)(8) requires this statement in the part 70 permit. Even if no emissions trading is expected at the source at the time the permit is issued, this provisions allows for trading that may occur in the future.</p> <p>Note: If the source requests, in its permit application, emissions trading under a cap, proceed to the next row...If you suspect that trading under a SIP-approved rule is expected, review the requirements in table 3 below.</p>
<p>...contain, at the permittee's request, terms and conditions for the trading of increases and decreases within the permitted facility, to the extent that the applicable requirements provide for trading such increases and decreases (e.g., compliance with a federally-enforceable emissions cap) without a case-by-case approval?</p>	<p style="text-align: center;">If Trading Under a Cap:</p> <p>Review the application to ensure:</p> <ul style="list-style-type: none"> • the permittee requested the trading provisions solely for the purpose of complying with a federally enforceable emissions cap; • the cap was established independent of otherwise applicable requirements; and • the source has proposed replicable procedures and permit terms that ensure the trades are quantifiable and enforceable <p>Note: The permitting authority need not include in emissions trading provisions any emissions unit for which there are no replicable procedures to enforce the emissions trades.</p> <p>Review the permit to ensure the permit:</p> <ul style="list-style-type: none"> • contains the trading conditions in the application, if approvable; • requires compliance with all applicable requirements; • includes all monitoring, record keeping, reporting and compliance terms necessary to determine compliance with the emissions trading scheme; and • requires the permittee to provide EPA and the permitting authority with at least 7 days advance written notice [authorizes less for emergencies] of any trade, stating when the change will occur and describing resulting changes in emissions and how they will comply with the terms and conditions of the permit. <p>Note: The permit shield may extend to such terms and conditions.</p>

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

SIP Trading Program in Title V Permits: The following table describes a trading provision that allows, through a **SIP process** with EPA review and approval, an emissions trading program so future trades at a source will not have to undergo case-by-case review. The state and EPA must assure that the SIP or applicable requirement provides replicable procedures to ensure that trades are accountable, enforceable, and quantifiable. If you suspect the permit you are reviewing allows SIP trading at the title V source, you will need to check the permit program, the application, the permit and the statement of basis.

Table 3 – Emissions Trading Based on a SIP-approved Rule (70.4(b)(12)(ii))	
Does the Permit Program or Permit...	Review Tips
...identify the SIP rule under which the source is electing to conduct trading?	SIP approved rule must be identified in the permit.
...contain SIP-approved emission limits?	All emission limits must be contained in the permit.
...already provide for such trading?	If so, then the source cannot take advantage of the §70.4(b)(12)(ii) provision. It is available when the permit does not already provide for such trading.
...require a written notification at least 7 days in advance. Note: the part 70 regulations at 70.4(b)(12)(ii) only require the Part 70 programs to require notifications. It seems reasonable to require the Part 70 permit to also require the notifications along with minimum requirements.	Be sure the written notification includes: <ul style="list-style-type: none"> • when the proposed change will occur, • a description of each change; • a discussion of any change in emissions; • the permit requirements with which the source will comply using the trading provisions of the applicable SIP; and • the pollutants emitted subject to the trade; and • reference to the provisions with which the source in the SIP and that provide for the emissions trade.
Does the SIP Rule include compliance requirements and procedures for such trades including: assurance that any trade is quantifiable, enforceable, accountable and based on replicable procedures?	<ul style="list-style-type: none"> • Quantifiable: Has the state determined the emissions impact of the SIP limit? Are measurement techniques, including test methods, monitoring, record keeping and reporting requirements included for the allowed trading? • Enforceable: emission limits must be enforceable as a practical matter and the SIP must include clear enforcement authority. • Accountable: the demonstration of reasonable further progress, attainment or maintenance for the SIP must account for the aggregate effect on the emissions trades; • Replicable: can two independent entities apply the same procedure and obtain the same result when determining compliance?
Does the permit include a shield for the trades?	The permit shield cannot extend to any change made under (b)(12)(ii). Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the applicable implementation plan authorizing the emissions trade. (<u>See</u> 40 CFR 70.4(b)(12)(ii)(B)).

Guidelines: Alternative Operating Scenarios and Emissions Trading Provisions

Alternative Limits and Trading Provisions –

In addition to trading provisions, the permit may also contain an alternative emissions limit as allowed under the approved program and 70.6(a)(1)(iii). Be aware that sources may elect these alternative limits; there are important distinctions between the two as shown below:

Comparison Between Trading Provisions at 70.6(a)(10) and Alternative Limits at 70.6(a)(1)(iii)

Trading Provisions at 70.6(a)(10)	Alternative Limits at 70.6(a)(1)(iii)
SIP approved program to allow trading at title V sources.	SIP provision must allow for a determination of an alternative emission limit equivalent to that contained in the plan
SIP process must establish replicable procedures to ensure trades are accountable, enforceable and quantifiable.	SIP provisions authorizing alternative limits will not necessarily have established in advance the replicable procedures to ensure that the alternative limits are accountable, enforceable and quantifiable.
Title V permit must assure that the emissions trading provisions contain the appropriate compliance requirements.	Title V permit must contain the replicable procedures as part of full permit issuance. Equivalency demonstration is contained in the permit.